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May 20, 1994

Mr. William F. Caton, Acting Secretary
Federal Communications Commission
1919 M Street, NW, Room 222
Washington DC 20554

RECEIVED

MAY 20 1994

RE: ex parte Presentation in ET Docket 92-235

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

Dear Mr. Caton:

This is to advise that Gerard Nelson of AT&T and I met today with representatives of the OET Authorization and Evaluation Division to discuss matters related to the above proceeding. The focus of the discussion was to urge the Commission to promptly act to provide 15 additional cordless phone channels in the 46/49 MHZ band as proposed in the Notice of Proposed Rulemaking in this proceeding.

In addition to expressing AT&T's previously submitted positions in support of the Commission's proposals, the attached materials were used in the presentation.

Sincerely,

A handwritten signature in cursive script, appearing to read "F. Mathewson".

Attachment
cc: George Harenberg
Julius Knapp

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**CONSUMERS WILL BENEFIT FROM A PROMPT DECISION
TO PROVIDE ADDITIONAL CHANNELS
FOR CORDLESS TELEPHONES AT 46/49 MHZ.**

AT&T Corp.
May 20, 1994

**CONSUMERS WILL BENEFIT FROM A PROMPT DECISION TO
PROVIDE ADDITIONAL CHANNELS FOR CORDLESS
TELEPHONES AT 46/49 MHZ.**

- OVER 30 MILLION CORDLESS TELEPHONES PURCHASED IN PAST THREE YEARS
- APPROXIMATELY 50% OF ALL HOUSEHOLDS HAVE AT LEAST ONE CORDLESS TELEPHONE
- APPROXIMATELY 12% OF HOUSEHOLDS WITH A CORDLESS TELEPHONE HAVE TWO OR MORE
- INTERFERENCE IS THE MOST FREQUENT REASON FOR CONSUMER DISSATISFACTION WITH CORDLESS TELEPHONES
 - SURVEY DATA -- 32% NOT SATISFIED WITH PURCHASE DUE TO INTERFERENCE
 - FOCUS GROUP RESEARCH -- INTERFERENCE THE MOST FREQUENTLY MENTIONED PRODUCT ATTRIBUTE I NEED OF IMPROVEMENT

AT&T Corp.
May 20, 1994

INDUSTRY EFFORTS TO SOLVE INTERFERENCE PROBLEMS HAVE HELPED ONLY SOMEWHAT

- TEN CHANNEL SETS HELPED SOME, BUT EFFECT LIMITED BY "BABY MONITOR" USE
- 25 CHANNEL "46/49" CORDLESS TELEPHONES CAN PROVIDE IMPROVED PERFORMANCE AT RELATIVELY LOW COST
 - ESTIMATED "COST OF GOODS" RATIO OF A TYPICAL 25 CHANNEL "46/49" CORDLESS TELEPHONE COMPARED TO A TYPICAL 10 CHANNEL "46/49" PRODUCT IS APPROXIMATELY 1.2
- ALTHOUGH USE OF CORDLESS TELEPHONES OPERATING AT 900 MHZ AVOIDS CHANNEL CONGESTION, "900" PRODUCTS ARE SIGNIFICANTLY MORE COSTLY THAN "46/49" PRODUCTS AND CONSEQUENTLY LESS DESIRABLE TO CONSUMERS
- ESTIMATED TYPICAL RATIOS OF "COST OF GOODS" OF "900" PRODUCTS COMPARED TO "46/49" TEN CHANNEL PRODUCTS
 - "900" ANALOG 3.4
 - "900" LOW POWER DIGITAL (NOT SPREAD SPECTRUM) 2.8
 - "900" SPREAD SPECTRUM LOW-MEDIUM POWER 5.0
 - "900" SPREAD SPECTRUM HIGH POWER 5.4

**ALLOCATION OF ADDITIONAL CORDLESS TELEPHONE
CHANNELS WILL SIGNIFICANTLY ENHANCE PRODUCT
PERFORMANCE AND CUSTOMER SATISFACTION**

<u>CHANNELS</u>	<u>USERS</u>
5	6
10	17
15	28
20	41
25	55

- TWENTY USERS IN COMMON "INTERFERENCE ZONE" IN URBAN HIGH-RISE ENVIRONMENT WOULD NOT BE UNUSUAL
- ALTHOUGH EXISTING 10 CHANNELS COULD SUPPORT 17 USERS, "BABY MONITOR" DEVICES POTENTIALLY REDUCE NUMBER OF CHANNELS TO 5 SERVING 6 USERS
- EVEN WITH NO "BABY MONITORS" PRESENT, 10 CHANNELS STILL COULD BE INADEQUATE IN SOME AREAS
- EVEN IF "BABY MONITORS" ARE PRESENT AND ONLY 10 OF THE 15 NEW CHANNELS ARE AVAILABLE AT ANY SPECIFIC TIME OR PLACE DUE TO SHARED USE, THE POTENTIAL NUMBER OF
 - AVAILABLE CHANNELS INCREASES FROM 5 TO 15, AND
 - USERS INCREASES FROM 6 TO 28

AT&T Corp.
May 20, 1994

**A PROMPT DECISION IS NECESSARY FOR 25 CHANNEL
PRODUCTS TO BE AVAILABLE TO CONSUMERS FOR SPRING
1995 BUYING SEASON**

- A DECISION DURING JULY 1994 WILL PERMIT 25 CHANNEL PRODUCTS TO BE AVAILABLE IN MAY, 1995
- A DELAY BEYOND JULY MEANS THAT NEW PRODUCTS WILL "MISS" THE SPRING PURCHASE WINDOW

AT&T Corp.
May 20, 1994

Cordless Owners Focus Groups

Excerpts of comments related to interference and sound quality from focus group interviews with owners of a variety of brands of cordless telephones. Interviews were conducted in Boston, Massachusetts; Atlanta, Georgia; San Francisco, California; New York City, New York; Minneapolis, Minnesota; and Dallas, Texas at various times during 1993.

Boston 12/13/93

Participant 1: Sometimes when I'm losing, I get the funny noises I can't change the frequency or whatever you can do. I don't have that capability on my phone so sometimes I'll even walk into the bedroom and pick up that extension if I'm losing it. But, that's the way it is.

Moderator: What do you mean it's losing?

Participant 1: You get those funny noises, it sounds like Martians are on my phone.

Moderator: But does that happen just in certain rooms?

Participant 1: No, sometimes it's at random. So, sometimes I'll go back into the bedroom.

Participant 2: But, you know what, it's funny because the cordless phone comes on the monitors. You can hear other people from the monitor, from the telephone. So, you have to keep switching them.

Moderator: Okay.

Participant 3: Yeah, I have enough problems with phones crossing in my dorm, anyway, because so many people have cordless phones. They're always crossing and I'm always picking up other people so it would just be worse on the speaker phone, I think.

Moderator: Any other features that you have on your phone that you have used ?

Participant 4: Channels.

Moderator: Channels, okay. Anybody else use the channels?

Participant 3: Yeah, you have to because it crosses so much.

Participant 5: We have the same phone in the apartment. We bought this phone six months ago. It was terrible in the apartment. The connections, static, the little voices. But, it's perfect now.

Moderator: What features would you want it to have?

Participant 6: Something to get rid of all the static.

Participant 2: The range.

Participant 3: Something so that the lines don't cross.

Participant 7: The one that I did buy, had all these great channels and I could switch them and I was still getting somebody else on the line and people couldn't reach me.

**Cordless Owners
Focus Groups**

Atlanta 12/15/93

- Moderator: What else don't you like? What are some of the other problems?
- Participant 1: The older ones, you get the bottom of the bucket sound out of them.
- Participant 2: Oh, I know that's what all the people complain with those cordless phones that other people can hear you talking. And I know some people who purposely go outside to see if they can pick up channels like that.
- Moderator: Okay, is that a problem for you when you can hear others calling?
- Participant 3: It's fun sometimes. I live right near to WSP Towers and I can get stock quotes anytime, just pick up my phone.
- Moderator: What else?
- Participant 4: When I had mine it was funny. When two people in our neighborhood were using the same cordless phones a lot of times I could listen in on their conversations.
- Participant 5: Yeah, that's why you can buy cheapies and you might have a problem with that, I think.
- Participant 6: Yeah, that's why my husband doesn't want one.
- Participant 5: But our really nice one, you couldn't tell.
- Participant 6: We have a problem in our neighborhood that we have a teenage boy that swears he can hear other people's telephone conversations. And he taunts the girls with it, you know, "I heard you on the phone last night" and he gives them the creeps.
- Participant 7: That's possible.
- Participant 6: I know its possible!

**Cordless Owners
Focus Groups**

San Francisco 12/16/93

- Participant 1: For some reason, if I move towards the back of the house with one of the phones it starts getting static, like in the backyard for some reason. And I think it's the interference with different lines. And it's usually during the day, in the evening it's not as bad and maybe sometimes on the weekends.
- Participant 2: I really don't use the cordless phone as the primary phone for a couple of reasons. Probably the biggest one is the fact that the area I live in is a loud, lot of housing units and I was having some problems initially. And the main one would be a Sony with just unintended people, you're talking on the phone and you might have other people just random conversations, other people coming in and out of the conversation. And maybe it's paranoia on my part but it didn't seem like it was that secure a line.
- Participant 3: I was really worried about that too, talking on the phone. Our next door neighbor who has since moved, we would pick up the phone and we could hear her conversations on our phone.
- Participant 4: On your cordless phone?
- Participant 3: Yeah, it was just like bizarre.
- Participant 4: How long would you listen for?
- Participant 3: Not very long.

**Cordless Owners
Focus Groups**

New York City 8/30/93

- Participant 1: I tend to like stationary phones better because my sound reception is better and it annoys other people less.
- Participant 2: Besides the sound quality, for me the only times I've used the cellular, no I'm sorry, the cordless is if I'm talking in a private conversation and I don't want to take the chance that someone might be listening. I've always heard that it's possible to tap into phone calls, maybe if you can a scrambler or something or a code that people can't listen in, like on the radios.
- Moderator: Okay. What else? What's not ideal? Donna?
- Participant 3: I don't know, I actually, I can't think of anything other than what's been said. I find that reception is a problem and sometimes in mid-conversation, I'll switch just because it's becoming such a problem.
- Participant 4: I have had several experiences, not on a daily basis but several experiences where somebody else was on the same line as myself and you know, it puzzles me and I don't like that. It doesn't make me comfortable knowing that somebody else is on my wire.
- Moderator: Between now and the year 2000, I know it used to sound like a long time but it's only seven years away, what basic problems, and again speak just for yourself, would you like to see solved with things related to cordless telephones?
- Participant 5: Reception.
- Moderator: Jill, talk to me about that a little bit.
- Jill: Well, with the cordless sometimes it's not clear, sometimes it's fuzzy, sometimes you get cut off, it has happened to me. But, it would be nicer if it was clearer like a regular phone.
- Moderator: That's a real problem?
- Jill: Yeah.

Moderator: Steve, what's not right?

Steve: Just the reception. I got a studio so I don't even need much reception. But, if you walk from let's say one room to the other, like a closet or something or the bathroom, you can't even get good reception. It becomes staticy and we're talking 20 feet, it's just a wall.

Participant 6: I liked it when they first came out with instead of one channel you had more channels and it would switch automatically and it would give the cleanest one. I've seen no different stuff.

Moderator: Some of them have ten channels.

Participant 6: Yeah, I've got one of that's got ten, I don't see any difference with the one that has one.

Moderator: You still have a problem?

Participant 6: Yeah.

Participant 7: I've got channels. Mine doesn't automatically switch but I'm constantly telling my wife when she complains about the phone all the time: "I hate this phone, I hate this phone". Meanwhile, she walks into the other room and I say hit the channel, just change the channel and it will come in clearer. But, I guess if there's some way it could improve automatically.

Participant 8: The problem is the reception. Sometimes the person on the other end, even though they're in New York, it sounds like they're in Tokyo. The reception is not clear.

**Cordless Owners
Focus Groups**

San Francisco 9/2/93

Moderator: What's not ideal?

Participant 1: One thing on my cordless, once it kind of rang and I picked it up and it wasn't a call for me. It was one of my neighbors and I could hear the conversation as clear as if someone was calling me. That concerns me.

Participant 2: That is a problem.

Participant 3: I use a cordless but sometimes I get annoyed with the reception so I'll change phones in the middle of conversation. I always start with a cordless so I have flexibility but lately I've often really switched.

Participant 4: Reception, I would say. The annoyance of the antenna but the quality of the reception as I go from room to room. I get lured into these kind of "ehhrr" conversations.

**Cordless Owners
Focus Groups**

Minneapolis 8/31/93

Moderator: What should be improved? What problems should be solved the next time you buy a cordless phone?

Participant 1: Talking to someone outside another cordless phone.

Moderator: What do you mean?

Participant 1: I can always tell if I'm dialing a friend of mine, if they have a cordless or not and if they've picked up on the cordless. There's just more static than if I'm calling someone who I know has a wall-mounted. I can just tell. You know, it's like, whoa, wait a second, let me adjust or they end up adjusting it, whether it be as you said then, moving away from the refrigerator or something like that. I just know, I can generally tell when I'm talking to someone else on a portable phone; from one portable to another. I know there are a lot of other cordless phones in my neighborhood and I get scratches of other people's conversation. You kind of think okay, I wouldn't like to be eavesdropping but I'm not doing it intentionally. But who is out there hearing mine.

Participant 2: I have had snatches of other conversations. I have heard snatches of car phones and just, you know, you're talking, you're in the conversation and all of a sudden "ckhhh" and you start getting something else and it's just disrupting. And so, just for the quality of it, just to make sure that you have a pure quality line.

Participant 3: Hearing little snatches of conversations reminds me when I was a boy and we had party line, it sort of seems funny or something.

Participant 4: I get more interference if I'm at home with how I make a business call. Now, I usually go to my regular phone because with a portable, especially if I walk around, I will get interference or it's like, you know, you try to change channels and to me that's a real pain. So, doing business calls if I'm not doing any movement, beside you saying it's kind of hard to hold, but I won't do that because I tend to, when I use mine, I tend to walk with it, do something maybe. That's the reason for the phone.

Moderator: That's why they call them portables.

Participant 4: That's exactly right. But then the channel changes or something, and I get interference. So, if I'm calling relatives or friends or something, I'll use it. Otherwise, I don't want to take the chance of moving around and getting cut off or something coming through on a business call.

Participant 5: We have an AT&T and that doesn't seem to be a problem but we do get our neighbors every once in a while. So, whether or not they've got the baby monitors on or something, that's causing it, but I have gotten my neighbors calls every once in a while. And then I think how they're getting mine.

Participant 4: I'd like to be able to honestly not have this where you have to find a clear channel to talk on, with the interference. Where it's just built in; where its going to be like your regular phone; where you pick it up and you've got it and you don't have to try to find which is clearer, which is more static-free.

**Cordless Owners
Focus Groups**

Dallas 6/3/93

Moderator: Chris, what makes a great cordless phone?

Chris: Well, I live in an apartment and it seems like those are the worst. I have more static and stuff with living in an apartment. My sister has one and she lives in a house, she does get some but it doesn't seem as bad.

Participant 2: I'm in consensus with the rest of the groups, static is my biggest complaint.